

REMARKS:

- 1) This Response is being filed within two months after the mailing date of the Final Office Action of May 26, 2010, and should thus receive expedited further examination.
- 2) Entry and consideration of this Response After Final are respectfully requested. This Response does not raise any new issues that would require further search or consideration. Instead, this Response merely addresses the issues raised for the first time in the Final Office Action of May 26, 2010. The present amendment clarifies the claims to avoid an unintended interpretation of the claims set forth in the Final Office Action, and also places into independent form certain claims indicated as containing allowable subject matter. The amendments do not increase the total number of claims. Also, this Response places the application into better form for appeal, if that should become necessary. Therefore, entry and consideration of this Response After Final are appropriate, and are respectfully requested.
- 3) Referring to item 10) of the Office Action Summary, please indicate the acceptance of the drawings filed on January 9, 2006.
- 4) The specification has been amended as follows.

The written description has been amended to provide express antecedent support for the terminology "desired final contour" as a shorthand term for the original disclosure of the desired

surface contour of the structural component that is to be produced by the milling operation, whereby the desired surface contour thus is produced by the milling operation. From the context of the original disclosure, and from the original description terminology "geometry that is to be produced" and "desired contour" and "contour", it is clear that this is the "desired final contour" of the structural component to be produced by the milling, even though the express term "desired final contour" was not used. For example see the specification at page 5 lines 12 to 20, page 6 lines 1 to 9, and page 7 lines 8 to 23. The amendments in the specification thus do not introduce any new matter, but rather merely clarify and simplify the text, and achieve exact correspondence between the claim terminology and the description terminology.

Furthermore, the written description has been amended to provide express support for the subject matter of claims 20 and 25, in which the step of defining the collision contour comprises moving the milling tool along an edge of a sample model that has the desired milled shape of the milled component, which is defined by the desired final contour as discussed above. While the original description did not expressly disclose such use of a "sample model", it would be inherently understood from the original disclosure that a sample model of the structural component to be produced must be used in the disclosed method. Because the structural component to be produced by the milling method does not yet exist, i.e. has not yet been milled-out, it does not yet have "edges of the rotor blades" as discussed at page 7 line 12 of the original specification. Thus, in order to

have such "edges of the rotor blades that are to be milled-out" there must first be some sample model of the structural component that is to be produced, whereby the sample model has the intended edges of the rotor blades with the desired milled shape defined by the desired final contour that is to be produced by the milling operation. Only then is it possible to move the tip of the milling tool along these edges of the sample model in order to thereby define the collision contours for the milling method. The original description at page 7 lines 8 to 18 has been clarified accordingly. Such a clarification of subject matter that is inherently necessary as part of the original disclosed method does not introduce any new matter.

Entry of the specification amendments is respectfully requested.

5) The claims have been amended as follows.

Independent claims 8 and 21 have been amended to make expressly clear that the respective milling method is for producing a structural component or milled component having a desired final contour to be produced by milling. This is merely a clarification of the intended meaning and scope of the previous claim language of claims 8 and 21. For example, previous claim 8 recited a method for producing a structural component in which "at least one collision contour respectively corresponding to a surface or an edge of the at least one sidewall of the structural component to be produced is defined". Because the surface or edge is a surface or edge "of the structural component to be produced", therefore the surface or edge must necessarily be

elements of the "desired final contour" of the structural component which is to be produced by the milling operation. Also, previous claim 21 recited a method of producing a milled component including the step of "defining a proposed tool path along which said milling tool will be moved to mill said raw material into a desired milled shape of said milled component", which is the component to be produced by the milling. The method of claim 21 further includes a step of "defining at least one collision contour of said desired milled shape of said milled component", whereby the "desired milled shape" was intended to be understood as corresponding to a desired final contour that is to be produced. In other words, the "desired milled shape of said milled component" is defined by the so-called "desired final contour".

The above features of the method are supported by the original description (for example see page 5 lines 13 to 16, page 6 lines 1 to 9, page 7 lines 8 to 11), and thus do not introduce any new matter. The present amendment merely achieves better express correspondence between the language of the arguments set forth in the prior Response, and the language of the present claims. While the specific term "desired final contour" was not recited in the previous claims, the meaning thereof was intended in the previous claim language. That has now been made clear, to avoid an unintended different interpretation of the claim terminology.

Claims 19, 27, 29 and 30 have been canceled.

New claims 31 to 34 have been added. New independent claim 31 is based on a combination of prior claims 8 and 19. New

claim 32 is based on prior claim 29 and depends from claim 31. New independent claim 33 is based on a combination of prior claims 21 and 27. New claim 34 is based on prior claim 30 and depends from claim 33. As these claims merely present prior dependent claims now in independent form, these claims do not introduce any new matter.

Entry and consideration of the claim amendments and the new claims are respectfully requested.

- 6) Referring to section 2 on page 2 of the Final Office Action, the rejection of claims 20 and 25 for lack of a sufficient written description under 35 USC 112(1) is respectfully traversed. While the original specification did not include the terms "sample model" or "sample of the component", it would be readily understood by a person of ordinary skill from reading the original description, that the originally described method inherently must involve a "sample" or "sample model" of the component to be produced, because the structural component itself (which is to be produced by carrying out the milling method) does not yet exist, but the described method involves tracing the milling head of the milling tool along edges of contours that are to be produced (see page 7 lines 8 to 14 of the original specification). The only way to provide such edges of a desired final contour that is to be produced, must inherently involve first preparing a sample or sample model having the desired final contour of the component that is to be produced. Only on such a sample model can the milling tool then be traced along the edges in order to define a collision contour as originally

disclosed in the written description. The written description has now been amended to make this more clear as discussed above. In view of the amendment of the written description, claims 20 and 25 are supported by a written description that reasonably conveys to a person of ordinary skill that the inventor had possession of the presently claimed invention at the time the application was filed, because the amendatory clarification is inherently understood within the scope of the original disclosure. For these reasons, the Examiner is respectfully requested to withdraw the rejection of claims 20 and 25 under 35 USC 112(1).

- 7) Referring to section 5 on pages 5 and 6 of the Final Office Action, the indication of allowable subject matter in prior claims 19, 27, 29 and 30 is appreciated. New claims 31 to 34 incorporate that allowable subject matter. New independent claim 31 is based on a combination of prior claims 8 and 19, and new claim 32 is based on prior claim 29 and depends from claim 31. New independent claim 33 is based on a combination of prior claims 21 and 27, and new claim 34 is based on prior claim 30 and depends from claim 33. Thus, claims 31 to 34 should now be allowable.
- 8) Referring to section 1 bridging pages 2 and 3 of the Final Office Action, the rejection of claims 8 to 17, 21 to 23 and 28 as anticipated by US Patent Application Publication US 2001/0048857 (Koch) is respectfully traversed.

Applicant's arguments set forth in remarks section 3 on pages 10 to 15 of the prior Response dated February 11, 2010 are incorporated herein by reference and reasserted.

Referring to section 4 on pages 4 and 5 of the Final Office Action, the Examiner's explanation of why applicant's arguments of February 11, 2010 were not persuasive is appreciated and has been taken into account. The claims have now been amended to use the terminology "desired final contour" as discussed above, so that the claim language now corresponds more directly to the language of the previously presented arguments. While the prior claims did not use the term "desired final contour", the prior claims did use terminology such as "desired milled shape" (see claim 21), and were intended to define a desired final contour despite not using that exact language, as discussed above. The "desired final contour" is not limited to either a surface or an edge, but rather refers to the desired final surface shape or geometry of the structural component that is to be produced. Thus, the desired final contour can refer to a surface or an edge or both or a plurality of surfaces and edges, but in any event defines the desired final surface shape of the structural component that is to be produced by the milling operation. This is further understood from the written description at text locations cited above.

As such, with the present clarifying amendments, the claim terminology is now more directly in-line with the arguments previously presented in the Response of February 11, 2010. The Examiner is respectfully requested to now fully consider those arguments which had not been previously considered or responded

to (see the middle of page 5 of the Final Office Action stating that "*the Examiner will not respond to those parts of Applicant's arguments*"). Thus, the previous arguments are reasserted herein, now in the context of the currently amended claim language. Furthermore, with the present amendments, there is no conflict or contradiction between the independent claims and the dependent claims as was asserted by the Examiner.

For the above reasons, the Examiner is respectfully requested to withdraw the rejection of claims 8 to 17, 21 to 23 and 28 as anticipated by Koch.

- 9) Referring to section 3 on page 4 of the Office Action, the rejection of claim 25 as obvious over Koch in view of US Patent 4,518,288 (Cilindro) is respectfully traversed. Claim 25 depends from independent claim 21, which has been discussed above in comparison to Koch. The Examiner has additionally applied Cilindro for disclosing that "*it is common to test programming of a numerical control milling machine on a sample workpiece*". While that may be true as disclosed by Cilindro, that is not relevant to the present invention of claim 25. Claim 25 does not involve testing the programming of a numerical control milling machine on a sample workpiece. Rather, claim 25 relates to producing or carrying out the programming of a certain aspect of numerical control for the present inventive method, by tracing the milling tool along an edge of a sample model. Particularly, claim 25 recites that the inventive method step of defining a collision contour comprises moving the milling tool along and in

contact with an edge of a sample model that has the desired milled shape of the milled component that is ultimately to be produced by the milling method. Cilindro does not disclose and would not have suggested such a method step in combination with the method of Koch. As tacitly admitted by the Examiner, Koch is silent in this regard, and Cilindro teaches something very different, namely to mill-out a block of wax based on the numerical control programming, in order to determine whether the resulting wax sample model actually has the intended shape. That is very different from the present invention, which involves providing a sample model that has the desired milled shape of the milled component that is to be produced, and then moving the milling tool along an edge of this sample model in order to define a collision contour which will be used in the programming of the milling method according to the parent independent claim 21. Even a combined consideration of the two references would have taught only away from the present invention, namely the references would have taught to produce a model based on the control programming, rather than tracing a model to produce the control programming. For these reasons, the Examiner is respectfully requested to withdraw the rejection of claim 25 as obvious over Koch in view of Cilindro.

- 10) Favorable reconsideration and allowance of the application, including all present claims 8 to 17, 20 to 23, 25, 28 and 31 to 34, are respectfully requested.

Respectfully submitted,

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Enclosures:
Transmittal Cover Sheet
Electronic Fee Transmittal

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